



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

3. "On a New Method of propagating Plants." By E. J. Lowe, Esq., F.R.A.S., F.G.S. &c. Received Nov. 17, 1853.

The author states that the experiment of a new method of propagating plants has been so successful, that he has taken the liberty of forwarding to the Royal Society this short paper upon the subject, for the guidance of those who are interested in the advance of horticulture.

It had occurred to him, that if a cutting of a plant were sealed at the base, so as to exclude the moisture of the soil from ascending the stem in injurious quantities, the method of striking cuttings of most species of plants would not be so precarious a process as at present; and accordingly some collodion was obtained in order to make the experiment.

With respect to this new process, he states, that immediately upon the cutting being severed from the parent stem, the collodion was applied to the wound, and then left a few seconds to dry, after which the cuttings were potted in the ordinary manner.

To test the value of this new process more effectually, duplicates of all the species experimented upon were at the same time similarly planted, without the collodion being applied to them.

Experiments were carried on in two different ways; one batch of cuttings being placed on a hot-bed, whilst a second batch was planted in the open ground, without even the protection of glass.

*First Batch.*—All of which were placed on a hot-bed on the 1st of September, and examined on the 1st of October:—

*Stove Plants.*

Number of cuttings with collodion applied.	Name of plant.	Number of cuttings which took root.	Number of cuttings without the application of collodion.	Number of cuttings which took root.
1	<i>Ixora coccinea</i> .....	1	1	0
1	<i>Tacsonia manicata</i> .....	1	1	1
3	<i>Franciscea Hopeana</i> .....	3	3	0
3	<i>Franciscea Pohlana</i> .....	3	3	0
2	<i>Gloxinia Maria van Houtte</i> .....	0	2	1
2	<i>Begonia incarnata</i> .....	2	2	1
8	<i>Achimenes patens</i> .....	7	8	6
2	<i>Hoya bella</i> .....	2	2	1
2	<i>Rondeletia speciosa</i> .....	2	2	1
2	<i>Allamanda nerifolia</i> .....	2	2	1

*Greenhouse Plants.*

6	<i>Boronia serrulata</i> .....	5	6	0
3	<i>Polygala dalmaisiana</i> .....	1	3	0
6	<i>Polygala grandiflora</i> .....	3	6	2
6	<i>Verbena luna</i> .....	6	6	6
1	<i>Chorozema cordata</i> .....	1	1	0
1	<i>Epacris pallida</i> .....	0	1	0
2	<i>Leschenaultia formosa</i> .....	2	2	1
1	<i>Swainsonia astragalifolia</i> .....	1	1	0
1	<i>Swainsonia galegifolia</i> .....	0	1	0
2	<i>Abelia rupestris</i> .....	2	2	0
4	<i>Plectranthus concolor, picta</i> .....	2	4	2

*Second Batch.*—Planted in the open ground on the 1st of September, and examined on the 1st of October:—

*Hardy Plants.*

Number of cuttings with collodion applied.	Name of plant.	Number of cuttings which took root.	Number of cuttings without the application of collodion.	Number of cuttings which took root.
12	<i>Garrya elliptica</i> .....	5	12	1
12	<i>Erica vagans</i> .....	7	12	4
18	<i>Bupleurum longifolium</i> .....	6	18	0
12	<i>Laurus foetens</i> .....	10	12	7
6	Rose, <i>Souvenir de la Malmaison</i> ...	4	6	3
12	<i>Taxus baccata</i> , golden-leaved var.	8	12	4

	Total number of cuttings to which collodion was applied.	Number of cuttings which took root.	Total number of cuttings without the application of collodion.	Number of cuttings which took root.
First batch .....	59	46	59	23
Second batch ...	72	40	72	19

The experiment, the author considers, speaks for itself. Notwithstanding the season being too far advanced for the full benefit of the process to be thoroughly observed, still twice as many cuttings took root treated by the new method as had rooted by the old. The mortality in the open ground was increased by slugs having eaten off above the soil some of the cuttings; those thus damaged were examined after they had been in the ground a month, and it was found that the collodion was quite as sound as when first applied. It would therefore appear that the collodion seals the wound of the cutting, and protects it from the fatal effects of damp, until roots are prepared to force through the covering of gun-cotton. It is further stated, that the application of this solution has been found to be exceedingly beneficial in the pruning of such plants as *Euphorbia speciosa*, *Impatiens latifolia*, *Impatiens latifolia-alba*, *Hoya bella*, *Hoya imperialis*, &c., the cut branches being prevented from bleeding.

It is the author's intention next spring to follow out this experiment, in budding and grafting, as he considers that it will also be useful in this branch of horticulture.

Gutta-percha, dissolved in æther, was in some instances substituted to heal the wounds caused by pruning; yet owing to this solution not drying as rapidly as collodion, the first, and sometimes the second application was not sufficient.

The effect of these solutions upon cut flowers was very marked. Two branches were gathered as nearly alike as possible; to the flower-stalks of the one, collodion was applied. These flowers were placed in vases filled with water; those coated over with collodion began to fade in thirty-six hours, and many were quite

dead in three days; whilst the flowers merely placed in water in the ordinary manner remained fresh and healthy. Those that faded soonest were *Reseda odorata* and *Tropæolum majus*, and those which were least affected were *Tagetes erecta* and *Senecio erubescens*.

4. "On the Acidity, Sweetness, and Strength of Wine, Beer and Spirits." By H. Bence Jones, M.D., F.R.S. Received Nov. 17, 1853.

(1.) The acidity of the different liquids was determined by means of a standard solution of caustic soda. The quantity of liquid neutralized was always equal in bulk to 1000 grs. of water at 60° F.

The acidity in different—

Sherries varied from 1·95 grs. to 2·85 grs. of caustic soda.

Madeira	„	2·70	„	3·60	„
Port	„	2·10	„	2·55	„
Claret	„	2·55	„	3·45	„
Burgundy	„	2·55	„	4·05	„
Champagne	„	2·40	„	3·15	„
Rhine wine	„	3·15	„	3·60	„
Moselle	„	2·85	„	4·50	„
Brandy	„	0·15	„	0·60	„
Rum	„	0·15	„	0·30	„
Geneva	„	0·07	„		„
Whisky	„	0·07	„		„
Bitter ale	„	0·90	„	1·65	„
Porter	„	1·80	„	2·10	„
Stout	„	1·35	„	2·25	„
Cider	„	1·85	„	3·90	„

Hence the order in which these wines may be arranged, beginning with the least acid, is Sherry, Port, Champagne, Claret, Madeira, Burgundy, Rhine, Moselle.

(2.) The sugar was determined by means of Soleil's saccharometer, which at least gives the lowest limit to the amount of sugar.

The sweetness in different—

Sherries varied from 4 grs. to 18 grs. in the ounce.

Madeira	„	6	„	20	„
Champagne	„	6	„	28	„
Port	„	16	„	34	„
Malmsey	„	56	„	66	„
Tokay	„	74	„		„
Samos	„	88	„		„
Paxarette	„	94	„		„

Claret, Burgundy, Rhine, and Moselle contained no sugar.

Hence the order in which these wines may be arranged, beginning with the driest, is—